

**ABSTRACT OF THE DISCLOSURE**

[0049] An adjustable filter for suppressing radio frequency emission is disclosed. The adjustable filter comprises a ferrite material inductively coupled to a signal carrier, the signal carrier having current at a first frequency and a second frequency, and a signal carrier having an adjustable inductance for adjusting the electrical characteristics of the signal carrier. Adjusting the electrical characteristics of the signal carrier reduces saturation of the ferrite material at the first frequency, thereby allowing the ferrite material to suppress current at the second frequency, where the second frequency is higher than the first frequency.